

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## REISSUE APPLICATION DECLARATION BY THE ASSIGNEE

Docket Number (optional)  
90015.0.1REISSUE

I hereby declare that:

The residence, mailing address and citizenship of the inventors are stated below.

I am authorized to act on behalf of the following assignee: \_\_\_\_\_

and the title of my position with said assignee is: \_\_\_\_\_

The entire title to the patent identified below is vested in said assignee.

Inventor Trac D. Tran	Citizenship US
Residence/Mailing Address 12225 Little Patuxent Parkway, #L, Columbia, MD 21044	
Inventor Pankaj Topiwala	Citizenship US
Residence/Mailing Address 7150 Riverwood Dr., Columbia, MD 21046-1245	
<input type="checkbox"/> Additional Inventors are named on separately numbered sheets attached hereto.	
Patent Number 6,421,464	Date of Patent Issued July 16, 2002
Title of Invention Fast Lapped Image Transforms Using Lifting Steps	

I believe said inventor(s) to be the original and first inventor(s) of the subject matter which is described and claimed in said patent, for which a reissue patent is sought on the invention entitled:

Fast Lapped Image Transforms Using Lifting Steps

the specification of which

 is attached hereto. was filed on \_\_\_\_\_ as reissue application number \_\_\_\_\_ / \_\_\_\_\_and was amended on \_\_\_\_\_  
(If applicable)

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

 I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b). Attached is form PTO/SB/2B (or equivalent) listing the foreign applications.

I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)

 by reason of a defective specification or drawing. by reason of the patentee claiming more or less than he had the right to claim in the patent. by reason of other errors.

[Page 1 of 2]

This collection of information is required by 37 CFR 1.175. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REISSUE APPLICATION DECLARATION BY THE ASSIGNEE	Docket Number (Optional) 90015.0.1REISSUE
---	--

At least one error upon which reissue is based is described as follows:

The existing claims are too narrow. Additional claims  
are necessary to capture the full invention disclosed.

[Attach additional sheets, if needed.]

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.

Name(s)	Registration Number
Frederick C. Williams	36,969
Trevor D. Arnold	51,416

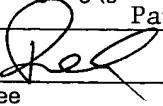
Correspondence Address: Direct all communications about the application to:

 Customer Number: 

OR

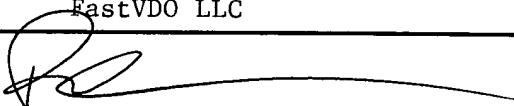
<input checked="" type="checkbox"/> Firm or Individual Name	Frederick C. Williams Burns & Levinson LLP				
Address	1030 Fifteenth St., NW, Suite 300				
Address					
City	Washington	State	DC	Zip	20005-1501
Country	US				
Telephone	(202) 842-0445	Fax	(202) 467-4045		

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of person signing (given name, family name)  
Pankaj TopiwalaSignature  Date July 29, 2003

Address of Assignee	7150 Riverwood Dr., Columbia, MD 21046-1245
---------------------	---

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>REISSUE APPLICATION: CONSENT OF ASSIGNEE; STATEMENT OF NON-ASSIGNMENT</b>		Docket Number (Optional) 90015.0.1REISSUE
This is part of the application for a reissue patent based on the original patent identified below.		
Name of Patentee(s) Trac D. Tran, Pankaj Topiwala		
Patent Number 6,421,464	Date Patent Issued July 16, 2002	
Title of Invention Fast Lapped Image Transforms Using Lifting Steps		
<p>1. <input checked="" type="checkbox"/> Filed herein is a statement under 37 CFR 3.73(b). (Form PTO/SB/96)</p> <p>2. <input type="checkbox"/> Ownership of the patent is in the inventor(s), and no assignment of the patent is in effect.</p>		
One of boxes 1 or 2 above must be checked. If multiple assignees, complete this form for each assignee. If box 2 is checked, skip the next entry and go directly to "Name of Assignee".		
The written consent of all assignees and inventors owning an undivided interest in the original patent is included in this application for reissue.		
The assignee(s) owning an undivided interest in said original patent is/are <u>FastVDO LLC</u> , and the assignee(s) consents to the accompanying application for reissue.		
Name of assignee/inventor (if not assigned) FastVDO LLC		
Signature 	Date July 29, 2003	
Typed or printed name and title of person signing for assignee (if assigned) Pankaj Topiwala President and CEO		

This collection of information is required by 37 CFR 1.172. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: FastVDO LLCApplication No./Patent No.: 6,421,464 Filed/Issue Date: July 16, 2002Entitled: Fast Lapped Image Transforms Using Lifting Steps

FastVDO LLC, a limited liability company  
 (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1.  the assignee of the entire right, title, and interest; or2.  an assignee of less than the entire right, title and interest.The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
 in the patent application/patent identified above by virtue of either:

A. [ ] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

**OR**

B. [x] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: Inventors To: Fast Video LLC  
 The document was recorded in the United States Patent and Trademark Office at Reel 010390, Frame 0029, or for which a copy thereof is attached.

2. From: Fast Video LLC To: FastVDO LLC  
 The document was recorded in the United States Patent and Trademark Office at ~~Reel XXXXXXXXXXXX, Frame XXXXXXXXXXXX~~ for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_  
 The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

[ ] Additional documents in the chain of title are listed on a supplemental sheet.

[ ] Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

July 29, 2003

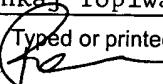
Date

(410) 309-6066

Telephone number

Pankaj Topiwala

Typed or printed name



Signature

President & CEO

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## PATENT ASSIGNMENT

THIS ASSIGNMENT, effective as of January 1, 2002, between Fast Video LLC (hereinafter referred to as ASSIGNOR), a limited liability company of the State of Maryland, with offices at 5565 Sterrett Place, Columbia, Maryland 21044, and FastVDO LLC (hereinafter referred to as ASSIGNEE), a limited liability company of the State of Maryland, with offices at 7150 Riverwood Drive, Columbia, Maryland 21046-1245;

WITNESSETH THAT;

WHEREAS, ASSIGNOR has acquired all right, title and interest in and to certain inventions, improvements and patent rights relating to United States Patent No. 6,421,464, issued July 16, 2002; and

WHEREAS, ASSIGNEE is desirous of acquiring ASSIGNOR's entire right, title and interest in and to the inventions, improvements and patent rights;

NOW THEREFORE, for and in consideration of the promises and mutual covenants herein contained, the parties hereto agree as follows:

In consideration for good and valuable consideration, receipt of which is hereby acknowledged, ASSIGNOR hereby sells and assigns to said ASSIGNEE all right, title and interest in and to the inventions or improvements set forth in U.S. Patent No. 6,421,464, of Tran, et al., entitled Fast Lapped Image Transforms Using Lifting Steps, issued July 16, 2002, including the rights to file and obtain United States and corresponding foreign patents, inventor's certificates and utility models, and all divisions, reissues, substitutions and continuations thereof.

IN WITNESS WHEREOF, ASSIGNOR has caused this agreement to be executed this 29th day of July, 2003.

Fast Video LLC, by

7/29/03  
Date

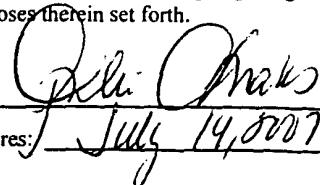
  
\_\_\_\_\_  
Pankaj Topiwala  
President & CEO

STATE OF District of Columbia  
) ss  
COUNTY OF District of Columbia  
)

On this 29th day of July, 2003, before me personally came the above named Pankaj Topiwala, who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

NOTARY PUBLIC

My Commission Expires:

  
\_\_\_\_\_  
July 14, 2007